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CLAIMS

What is claimed is:

1. A linkage structured to operatively extend between a railroad switch machine and a pair of movable rails of a railroad switch, the linkage
 - comprising:
 - a pair of first rail lugs;
 - a pair of second rail lugs;
 - one of the first rail lugs and one of the second rail lugs being structured to be operatively connected with one of the movable rails, the other of the first rail lugs and the other of the second rail lugs being structured to be operatively connected with the other of the movable rails;
 - an operating spread rod adjustably extending between the first rail lugs;
 - an operating lug structured to be connected with an operating rod of the railroad switch machine;
 - an operating connecting rod adjustably extending between the one of the first rail lugs and the operating lug;
 - a lock spread rod adjustably extending between the second rail lugs;
 - a lock lug structured to be connected with a lock rod of the railroad switch machine;
 - a lock connecting rod adjustably extending between the one of the second rail lugs and the lock lug;
 - a point detector lug structured to be connected with a point detector rod of the railroad switch machine;
 - a point detector connecting rod adjustably extending between the one of the second rail lugs and the point detector lug;
 - the operating spread rod, the operating connecting rod, the lock spread rod, the lock connecting rod, and the point detector connecting rod each being substantially straight and at least partially threaded.

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2. The linkage as set forth in Claim 1, in which
the operating spread rod, the operating connecting rod, the lock spread
rod, the lock connecting rod, and the point detector connecting rod each include a first
threaded end and a second threaded end.

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3. The linkage as set forth in Claim 2, in which
the operating spread rod, the operating connecting rod, the lock spread
rod, the lock connecting rod, and the point detector connecting rod each include a
plurality of nuts, with at least one of the nuts of each of the operating spread rod, the
operating connecting rod, the lock spread rod, the lock connecting rod, and the point
detector connecting rod being threadably cooperable with the first threaded end
thereof, and with at least another of the nuts of each of the operating spread rod, the
operating connecting rod, the lock spread rod, the lock connecting rod, and the point
detector connecting rod being threadably cooperable with the second threaded end
thereof.

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4. The linkage as set forth in Claim 3, in which
the one of the second rail lugs includes a first mounting hole extending
therethrough and a second mounting hole extending therethrough;
the lock connecting rod being adjustably received through the first
mounting hole;
the lock spread rod being adjustably received through the second
mounting hole.

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5. The linkage as set forth in Claim 1, in which
the operating spread rod and the operating connecting rod are each
adjustable independently of one another with respect to the one of the first rail lugs.

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6. The linkage as set forth in Claim 5, in which

480 the lock spread rod, the lock connecting rod, and the point detector
connecting rod are each adjustable independently of one another with respect to the
one of the second rail lugs.

7. A switching assembly structured to be a part of a railroad
485 switch having a switch machine, a pair of stock rails, a pair of movable rails, and a
plurality of rail ties, the switch machine including a frame, an operating rod, a lock
rod, and a point detector rod, the stock rails and the movable rails being disposed on
the rail ties, the rail ties generally being spaced from one another at a given pitch, the
switching assembly comprising:

490 a first hollow tie;
 a first support mounted to the first hollow tie;
 a second hollow tie;
 a second support mounted to the second hollow tie;
 the first and second hollow ties being positionable at the given pitch
495 with respect to one another and being structured to be positionable at the given pitch
with respect to the rail ties;

 the first and second hollow ties being structured to have the pair of
stock rails disposed thereon

 the first and second supports being structured to have the switch
500 machine mounted thereon;

 a linkage structured to operatively extend between the railroad switch
machine and the pair of movable rails of the railroad switch;

 the linkage including a pair of first rail lugs, a pair of second rail lugs,
an operating spread rod, an operating lug, an operating connecting rod, a lock spread
505 rod, a lock lug, a lock connecting rod, a point detector lug, and a point detector
connecting rod;

 one of the first rail lugs and one of the second rail lugs being structured
to be operatively connected with one of the movable rails, the other of the first rail
lugs and the other of the second rail lugs being structured to be operatively connected
510 with the other of the movable rails;

the operating spread rod adjustably extending between the first rail lugs;

the operating lug being structured to be connected with the operating rod of the railroad switch machine;

515 the operating connecting rod adjustably extending between the one of the first rail lugs and the operating lug;

the lock spread rod adjustably extending between the second rail lugs;

the lock lug being structured to be connected with the lock rod of the railroad switch machine;

520 the lock connecting rod adjustably extending between the one of the second rail lugs and the lock lug;

the point detector lug being structured to be connected with the point detector rod of the railroad switch machine;

525 the point detector connecting rod adjustably extending between the one of the second rail lugs and the point detector lug;

the operating connecting rod and the operating lock rod extending generally through the first hollow tie;

the lock spread rod, the lock connecting rod, and the point detector connecting rod extending generally through the second hollow tie; and

530 the operating spread rod, the operating connecting rod, the lock spread rod, the lock connecting rod, and the point detector connecting rod each being substantially straight and at least partially threaded.

8. The switching assembly as set forth in Claim 7, in which
535 the first and second hollow ties each include a bottom web, a top web, and a pair of side webs, with the top web and the bottom web each extending between and being connected with both of the side webs.

9. The switching assembly as set forth in Claim 8, in which
540 the first and second hollow ties each include at least a first access hole formed in the top web, at least a portion of at least one of the first rail lugs extending

through the at least first access hole formed in the first hollow tie, at least a portion of at least one of the second rail lugs extending through the at least first access hole formed in the second hollow tie.

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10. The switching assembly as set forth in Claim 8, in which the first and second hollow ties each include an interior; the operating lug extending between the interior of the first hollow tie and the exterior thereof;

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the lock lug and the point detector lug each extending between the interior of the second hollow tie and the exterior thereof.

11. The switching assembly as set forth in Claim 7, in which the operating spread rod, the operating connecting rod, the lock spread rod, the lock connecting rod, and the point detector connecting rod each include a first threaded end and a second threaded end.

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12. The switching assembly as set forth in Claim 11, in which the operating spread rod, the operating connecting rod, the lock spread rod, the lock connecting rod, and the point detector connecting rod each include a plurality of nuts, with at least one of the nuts of each of the operating spread rod, the operating connecting rod, the lock spread rod, the lock connecting rod, and the point detector connecting rod being threadably cooperable with the first threaded end thereof, and with at least another of the nuts of each of the operating spread rod, the operating connecting rod, the lock spread rod, the lock connecting rod, and the point detector connecting rod being threadably cooperable with the second threaded end thereof.

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13. The switching assembly as set forth in Claim 12, in which the one of the second rail lugs includes a first mounting hole extending therethrough and a second mounting hole extending therethrough;

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the lock connecting rod being adjustably received through the first mounting hole;

575 the lock spread rod being adjustably received through the second mounting hole.

14. The switching assembly as set forth in Claim 13, in which the lock spread rod, the lock connecting rod, and the point detector connecting rod are each adjustable independently of one another with respect to the one of the second rail lugs.

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15. The switching assembly as set forth in Claim 14, in which the operating spread rod and the operating connecting rod are each adjustable independently of one another with respect to the one of the first rail lugs.

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16. The switching assembly as set forth in Claim 7, in which the first and second hollow ties each include a first portion and a second portion connected together.

590 17. The switching assembly as set forth in Claim 16, in which the first and second portions are electrically insulated from one another.

18. The switching assembly as set forth in Claim 16, in which the first and second hollow ties each include a bottom web, a top web, and a pair of side webs, the top web and the bottom web each extending between and being connected with both of the side webs;

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the first and second portions of each the first and second hollow ties each including an access hole formed in the top web, the first rail lugs extending through the access holes formed in the first hollow tie, the second rail lugs extending through the access holes formed in the second hollow tie.

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